

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Withdrawn) A method for manufacturing a semiconductor device, comprising:

 forming a buried layer of a semiconductor substrate;
 forming an active region adjacent at least a portion of the buried layer;
 forming an isolation structure adjacent at least a portion of the active region;
 forming a gate oxide adjacent at least a portion of the active region;
 forming a polysilicon layer adjacent at least a portion of the gate oxide;
 removing at least a portion of the polysilicon layer to form a polysilicon definition structure, wherein the polysilicon definition structure at least substantially surrounds and defines an emitter contact region; and
 forming an implant region of the emitter contact region, wherein the implant region is self-aligned.

2. (Withdrawn) The method of Claim 1, wherein removing at least a portion of the polysilicon layer to form a polysilicon definition structure comprises:

 masking a first portion of the polysilicon layer, leaving a second portion of the polysilicon layer unmasked; and
 removing the second portion of the polysilicon layer.

3. (Withdrawn) The method of Claim 1, further comprising forming an implant region of a base contact region, wherein the base contact region is proximate an outer edge of the polysilicon definition structure.

4. (Withdrawn) The method of Claim 1, wherein a width of the polysilicon definition structure is approximately 0.4 to 0.6 microns.

5. (Withdrawn) The method of Claim 1, wherein a width of the emitter contact region is approximately 0.6 microns.

6. (Withdrawn) The method of Claim 1, wherein the isolation structure comprises a local oxidation on silicon (LOCOS) isolation structure.

7. (Withdrawn) The method of Claim 1, wherein the isolation structure comprises a shallow trench isolation (STI) structure.

8. (Withdrawn) The method of Claim 1, wherein the active region has a depth of approximately 3.5 microns.

9. (Withdrawn) The method of Claim 1, further comprising forming an emitter contact at the emitter contact region.

10. (Withdrawn) The method of Claim 1, further comprising forming one or more spacer structures adjacent the polysilicon definition structure.

11. (Withdrawn) The method of Claim 1, wherein the spacer structures comprise a nitride.

12. (Currently Amended) A semiconductor device, comprising:

- a buried layer of a semiconductor substrate;
- an active region adjacent at least a portion of the buried layer;
- an isolation structure adjacent at least a portion of the active region;
- a gate oxide adjacent at least a portion of the active region;
- a polysilicon definition structure adjacent at least a portion of the gate oxide, wherein the polysilicon definition structure at least substantially surrounds and defines an emitter contact region;
- a base contact region proximate an outer edge of the polysilicon definition structure; and
- an implant region of the emitter contact region, wherein the implant region is self-aligned during formation.

13. (Currently Amended) The semiconductor device of Claim 12, further comprising an implant region of a the base contact region, ~~wherein the base contact region is proximate an outer edge of the polysilicon definition structure.~~

14. (Original) The semiconductor device of Claim 12, wherein a width of the polysilicon definition structure is approximately 0.4 to 0.6 microns.

15. (Original) The semiconductor device of Claim 12, wherein a width of the emitter contact region is approximately 0.6 microns.

16. (Original) The semiconductor device of Claim 12, wherein the isolation structure comprises a local oxidation on silicon (LOCOS) isolation structure.

17. (Original) The semiconductor device of Claim 12, wherein the isolation structure comprises a shallow trench isolation (STI) structure.

18. (Original) The semiconductor device of Claim 12, wherein the active region has a depth of approximately 3.5 microns.

19. (Original) The semiconductor device of Claim 12, further comprising an emitter contact at the emitter contact region.

20. (Original) The semiconductor device of Claim 12, further comprising one or more spacer structures adjacent the polysilicon definition structure.

21. (Original) The semiconductor device of Claim 12, wherein the spacer structures comprise a nitride.